

Contributors to This Issue

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EDWIN L. CHINNOCK, Stevens Institute of Technology; Bell Telephone Laboratories 1939—. Mr. Chinnock has worked on microwave components, microwave radio relay, and helix waveguide fabrication. He is presently working on optical waveguide components.

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JACK M. MANLEY, B.S. (Electrical Engineering), 1930, University of Missouri; Bell Telephone Laboratories, 1930—. He was first concerned with theoretical and experimental studies of nonlinear electric circuits. He later worked with new multiplex methods for communication systems, including early research work on PCM. Afterward, he was engaged in transmission line research, and at present he is working on noise problems in digital transmission systems. Fellow, IEEE; member, Sigma Xi, Tau Beta Pi and Eta Kappa Nu.

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GRACE MURRAY, B.A., 1962, Duke University; M.S., 1966, Stevens Institute of Technology; Bell Telephone Laboratories, 1962-68; The RAND Corporation, 1968—. Miss Murray has worked extensively on traffic studies of complex telephone systems, using both stochastic simulation and mathematical techniques. Also, she has taught the GSP course, Advanced Programming. She is working on a study of the deployment and dispatching operations of the New York City Fire Department. Member, Phi Beta Kappa.

DONALD E. PEARSON, B.Sc. (Eng.), 1957, University of Cape Town; Ph.D., 1965, Imperial College, University of London; Bell Telephone Laboratories, 1965—. Mr. Pearson has been involved with picture coding, especially subjective studies of the effect of various bandwidth compression techniques on picture quality. He presently is engaged in research into the laws of color mixture in complex scenes such as television pictures and the choice of primary colors for optimum rendition of skin tones. Member, IEEE, Optical Society of America.

JOHN R. PIERCE, B.S., 1933, M.S., 1934, and Ph.D. (E.E.) 1936, California Institute of Technology. He has published 12 technical books, hundreds of papers and articles, a number of science fiction stories (some under the name J. J. Coupling), and a few poems. Some of his computer music appears on a Decca record, *Music from Mathematics*. His awards include: Eta Kappa Nu, 1942; Morris Liebmann Memorial Prize, 1947; Stuart Ballantine Medal, 1960; Air Force Association H. H. Arnold Trophy, 1962; the Arnold Air Society General Hoyt S. Vandenberg Trophy, 1963; the Edison Medal, 1963; the Valdemar Poulsen Medal, 1963; the National Medal of Science, 1963; the H. T. Cederghren Medal, 1964; Caltech Alumni Distinguished Service Award, 1966; and six honorary degrees.

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